

Date: Tue, 5 Oct 93 12:04:21 PDT
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>
Errors-To: Info-Hams-Errors@UCSD.Edu
Reply-To: Info-Hams@UCSD.Edu
Precedence: Bulk
Subject: Info-Hams Digest V93 #1181
To: Info-Hams

Info-Hams Digest Tue, 5 Oct 93 Volume 93 : Issue 1181

Today's Topics:

144Mc. Rhombic/KØMQS description of results tape revisited
DXBase IOTA Database ?
eliminating RFI from hf rig to PC
Icom IC-(delta)1A tri-band handeld first impressions
JNOS under Coherent
Motorola ad in QST?
noise models: solar vs. terrestrial ?
RTTY filter for 850
Selling license info (was: Re: 6 weeks 1 day!)
Soundblaster(tm) for Multi-mode Digital Communication
Stop hunter Harrassment in Michigan
subscribe
Understanding Antennas
W1FB RTTY contest software
walkman - radio transmitter
Where is Swedish Morse code program?

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 5 Oct 1993 13:58:09 GMT
From: news.service.uci.edu!paris.ics.uci.edu!csulb.edu!library.ucla.edu!
europa.eng.gtefsd.com!darwin.sura.net!haven.umd.edu!cs.umd.edu!
skates.gsfc.nasa.gov!bolt.gsfc.nasa.gov!user@network.
Subject: 144Mc. Rhombic/KØMQS description of results tape revisited
To: info-hams@ucsd.edu

Just refound long & detailed description on audio tape done for me years ago on Dick's (K0MQS) EME antenna of Rhombics. He had used single, stacked two side by side, stacked 4, & stacked 8. All based on a VK design. He still lives at 515-6242100 as I just called him to thank him. Says 2 METER Rhombic never wked as good as yagi for tropo, but was super for EME. I expect E-Skip & Meteor in direction of aim would be super also! Tape is a very detailed description of build & test and results. Abt 1/2 hr tape! Also abt 1966 SUPER METEOR storm that is due back likely in 1999!! He was heard in Russia by SWL during storm and has card. Dick

ARS W1DGA on HF and VHF / UHF

Date: 5 Oct 93 14:41:06 GMT
From: worldbank.org!news@uunet.uu.net
Subject: DXBase IOTA Database ?
To: info-hams@ucsd.edu

Does anyone know where I can find an IOTA database compatible with the DXBase logging program - the one supplied with the software only has about half a dozen entries.

Tnx, Darrell.

Date: 4 Oct 93 18:48:53 GMT
From: news-mail-gateway@ucsd.edu
Subject: eliminating RFI from hf rig to PC
To: info-hams@ucsd.edu

> I have the opposite problem from one previously discussed. I am getting
> lots of RF into the PC. When I key the transmitter the monitor display
> stretches vertically about 1". I tried keying the transmitter with
> a CW program on the PC but there was so much RF getting to the PC it
> caused it to go bananas. I used to do this a few years ago with a different
> computer and never had this problem (same rig). Any suggestions?

Well... I had a similar problem, especially on 40m & 80m. My rig was interfering with the keyboard. When I transmitted it inserted all kinds of garbage keystrokes. Made it impossible to use a logging program or computer keyer. I just found the problem last weekend. This is slightly embarrassing... I found the uhf coax connect going into my 30mhz low pass filter was push in about half way, with the shield part pulled back. Only the center conductor was touching. Yikessss!!!! I pushed the connector in and screwed on the shield on the connector and my problems went away. I guess it's been like that ever since I installed my antenna tuner. I've

been working all states for WAS award on 40m with a loose connection.

Another reason for RFI in your case may also be that you do not have an adequate RF ground. Many people (including myself) make all the right efforts to insure that there is a good DC ground, but forget about the RF ground. I've just recently been thinking about this because of some of the recent articles in QST. In my case, I have a ground rod outside the window from my shack. I think for a good RF ground though, I need to add some ground radials either at my xmtr or at the grounding rod.

Hope you find a solution to your RFI.

73 & cu!,
de km6wt, mont@ibmmail.com
 mont@netcom.com

Date: 5 Oct 1993 15:43:31 GMT
From: library.ucla.edu!agate!howland.reston.ans.net!spool.mu.edu!olivea!ncd.com!
newshost.ncd.com!hansen!phil@network.ucsd.edu
Subject: Icom IC-(delta)1A tri-band handheld first impressions
To: info-hams@ucsd.edu

I have owned one of these now for a month and I have been very pleased with the radio. It only has one or two very small items that I do not like the operation of (lack of a mute button and the use of a function key to enable or disable a band).

The radio is very handy and inspite of its thickness it is very easy to hold.

In article <28qai3\$8rv@hamal.usc.edu>, mead@hamal.usc.edu (Dick Mead) writes:
|> Aside from the high price, what annoys me about the radio is
|> the CTCSS decode is an extra-cost option. Now for a kilo-buck,
|> that should have been included. I played with the unit at the
|> SW Div convention, had it been priced closer to 800 bucks, I
|> might have gotten one. I think I'll wait.

Philip R. Graham Network Computing Devices
Director, Platform Development 350 N. Bernardo Ave.
phil@ncd.com Mountain View, CA 94043

Date: 5 Oct 1993 10:21:32 -0400

From: news.service.uci.edu!paris.ics.uci.edu!csulb.edu!library.ucla.edu!agate!
howland.reston.ans.net!sol.ctr.columbia.edu!news.mtu.edu!news.mtu.edu!not-for-
mail@network.ucsd.edu
Subject: JNOS under Coherent
To: info-hams@ucsd.edu

I am considering making the Linux port of JNOS work under Coherent 4.?.
Have any of the packeteers in this newsgroup tried it? What problems am
I looking at?

Thanks,
Ken Friberg n8pbe
friberg@mtu.edu

Date: 5 Oct 93 15:06:07 GMT
From: ogicse!uwm.edu!spool.mu.edu!news.nd.edu!nimtziici.edmedia.nd.edu!
user@network.ucsd.edu
Subject: Motorola ad in QST?
To: info-hams@ucsd.edu

In article <1993Oct4.162441.24321@hemlock.cray.com>, dadams@cray.com (David
Adams) wrote:

> In article p0i@panix.com, dannyb@panix.com (danny burstein) writes:
> |excuse the ignorance here, but since I don't get QST (and the library I
> |could check is closed until Monday) could someone please post or email a
> |summary of what the ad said?

> Here is the add which appeared on p. 161 of my October 1993 QST:

>

>

> A T T E N T I O N

>

> PUBLIC SAFETY ANNOUNCEMENT

>

> Tampering with Motorola's
> Communication Technology is
> Nothing Short of a Crime.

>

> Motorola has been at the forefront of communications
> technology for more than 60 years. Today, we offer a

rest of the ad deleted

What does "PUBLIC SAFETY ANNOUNCEMENT" mean?

Should I be concerned about my Public Servants using Motorola's radios for some reason? Is Motorola planning to activate some kind of remote control "fail-safe" circuit to render a radio that has been tampered with useless?

Rick Nimtz
Chief Technician/LAN Administrator
Educational Media
University of Notre Dame
INTERNET: Richard.D.Nimtz.1@nd.edu
CompuServe: 76207,2432
AOL: RNIMTZ
N9TJG (politically correct Tech+HF)

B16 DeBartolo Hall
Notre Dame, IN 46556-5692 USA
FAX: +1 219 631 8777
Voice: +1 219 631 8783

Date: 5 Oct 93 15:17:30 GMT
From: ogicse!emory!kd4nc!ke4zv!gary@network.ucsd.edu
Subject: noise models: solar vs. terrestrial ?
To: info-hams@ucsd.edu

In article <rbloomCEDyKx.7G6@netcom.com> rbloom@netcom.com (Ronald Bloom) writes:
>

>I guess the basic question I am wondering about is this:
>is HF noise of terrestrial origin (e.g. atmospheric, global-lightning, etc)
>significant factor in propagation predictions, relative to
>the Solar-Flux and magnetic activity which affect the ionosphere
>itself?

It's certainly important on the lower bands. In summer, communications on 75 meters is dominated by lightning and other atmospheric noise. It's not unusual to see a S9 noise floor. In the winter it's usually much quieter. On 20 meters and above, it's less of an issue unless there is a nearby thunderstorm in progress.

Gary

--
Gary Coffman KE4ZV |"If 10% is good enough | gatech!wa4mei!ke4zv!gary
Destructive Testing Systems | for Jesus, it's good | uunet!rsiatl!ke4zv!gary
534 Shannon Way | enough for Uncle Sam."| emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244 | -Ray Stevens |

Date: 5 Oct 93 13:53:53 GMT
From: ogicse!uwm.edu!math.ohio-state.edu!news.acns.nwu.edu!casbah.acns.nwu.edu!
rdewan@network.ucsd.edu
Subject: RTTY filter for 850

To: info-hams@ucsd.edu

In article <28hce2\$21@news.ysu.edu>, Jeff Gold <ag821@yfn.ysu.edu> wrote:
>

>I have a Kenwood 850S with a 500hz (YK88-c) CW filter. I like to
>operate RTTY contests and like Pactor. I noticed that during the
>last contest, I could have used a filter. The rig seems to have a
>2.7 filter built in. Since the rig is using LSB, would the YKSSN-1
>ssb filter be good for RTTY contesting?

You can use the 500Hz filter for RTTY if you use the FSK setting. I
do that regularly. There is a RCA phono jack for FSK input from
TU/TNC. It sends space tone normally and mark if shorted. This is the
opposite of most other rigs. However, this can be easily changed by
using the set up menu in the rig.

Rajiv
aa9ch
r-dewan@nwu.edu

Date: 5 Oct 93 17:28:09 GMT
From: news-mail-gateway@ucsd.edu
Subject: Selling license info (was: Re: 6 weeks 1 day!)
To: info-hams@ucsd.edu

> > ...
> > I base my statements upon my own personal experience. When I upgraded
> > from technician to advanced, three weeks after I upgraded I received a
> > catalog from AES along with a "Congratulations on your upgrade!"
> > letter. Since my new license didn't arrive from the FCC for another 4 weeks,
> > and was dated three weeks after I had received my AES catalog, *SOMEONE* in
> > the chain had to sell my name. Since it wasn't the FCC, and I doubt that the
> > local VE did, then that only leaves one other intermediary.....
> > ...
> That's interesting. Which VEC handled your upgrade? I think it would be illegal
> for the VE's to sell that info (I guess they could give it away, tho) but I
> don't think it would be illegal for the VEC to do so (unethical, maybe).
>

Just another datapoint, when I got my ticket a couple of years ago, the same
thing happened, ie about a week before the license came, I received
4 or 5 different catalogs related to ham radio. Also, when my wife got
her ticket last year, the same thing happened. We both took our tests from
local groups, one at a hamfest and one at a regularly scheduled session,
but they were different organizations (same state, different cities).
My guess would be ARRL sold the info, and actually I'm glad it was sold,

because I like to get catalogs.

Date: 5 Oct 93 15:03:36 GMT
From: ogicse!uwm.edu!linac!att!cbnewsm!jeffj@network.ucsd.edu
Subject: Soundblaster(tm) for Multi-mode Digital Communication
To: info-hams@ucsd.edu

In article <749798173snx@skyld.tele.com> jangus@skyld.tele.com (Jeffrey D. Angus) writes:

>
>In article <CE6Kr6.9J5@fc.hp.com> mckee@fc.hp.com writes:
>
> >
> > It should be possible to do everything you ask for with "a fast enough
> > processor". I'd bet that 9600 baud is probably too fast for 486's, but
> > I don't actually have any data to prove it...
>
> Tests run with the ax25 packet driver using a g3ruh modem rather than a
> baycomm modem indicate a top speed of 8500 baud or so with a 386/33.
> 9600 baud will work if the ax25 driver is run on a 486/66.
>
> It seems to me that this is a perfect example of HAM engineering. Using
> \$4500 dollars worth of number crunching processor to eliminate a \$125 TNC.
>
> If this sounds far fetched, remember the Kantronics KAM does all its bit
> bashing in software rather than an HDLC chipset.

Then again the idea of one using a \$120 soundblaster to replace a \$270 or thereabouts multimode unit does sound appealing. Also get sound to boot! Maybe not 9600 baud but 1200 baud packet, slowscan, CW, RTTY, AMTOR, PACTOR(?) should be possible with a Soundblaster. Should be a matter of time before we see these show up for that unit. A lot of use \$2000 computers to hook up to those \$120 TNC's by the way. 8-) 73!

Jeff

--

Jeff Jones	AB6MB		OPPOSE THE NORTH AMERICAN FREE TRADE AGREEMENT!
jeffj@seeker.mystic.com			Canada/USA Free Trade cost Canada 400,000 jobs.
Infolinc BBS 510-778-5929			Want to guess how many we'll lose to Mexico?

Date: Tue, 5 Oct 1993 05:25:07 GMT
From: news.Hawaii.Edu!uhunix3.uhcc.Hawaii.Edu!jherman@ames.arpa
Subject: Stop hunter Harrassment in Michigan

To: info-hams@ucsd.edu

In article <1993Oct4.163927.25257@hemlock.cray.com> dadams@cray.com writes:
>In article n9e@umcc.umcc.umich.edu, tim@umcc.umcc.umich.edu (Tim Tyler) writes:
>
>|>I'll be out there each weekend with a whistle and pots and pans to bang
>|>on to scare off the poor little critters so you can't shoot them!
>|
>| I'll be out there with bottle rockets!
>
>
>Silly. You scare them away from one hunter's area into another's.
>
>|>(what in the world does this have to do with ham radio?)
>
>What he said.
>
>---
>--David C. Adams Statistician Cray Research Inc. dadams@cray.com
>
> Kilo Golf Zero India Oscar -(KG0IO)-

This is a perfect example of how careless some folks are in attributing articles; Tim did not write "I'll be out there each weekend with a whistle...", I did. Tim correctly attributed that to me but David chopped it off. Shame on you Dave!

Jeff NH6IL (back in the old days when it
necessary to shoot to eat: WA6QIJ)

Date: 5 Oct 93 18:44:06 GMT
From: news-mail-gateway@ucsd.edu
Subject: subscribe
To: info-hams@ucsd.edu

subscribe

Date: 5 Oct 93 17:10:15 GMT
From: ogicse!flop.ENG.RORST.EDU!gaia.ucs.orst.edu!umn.edu!doug.cae.wisc.edu!
kolstad@network.ucsd.edu
Subject: Understanding Antennas
To: info-hams@ucsd.edu

In article <28qrsp\$9t1@aludra.usc.edu> asplund@aludra.usc.edu (Information Missing) writes:

>Hello all,

Hola.

>I have a couple of basic questions regarding antenna theory.

Unfortunately, antenna theory quickly goes from being basic to being rather nasty and difficult. But it's all lots of fun. :-)

>I was reading

>a book on the subject and, in a chapter about antenna performance,

>lists a chart showing "theoretical table of antenna gain". In the chart

>it shows a Half-Wave Dipole as having a 2.1 db gain over an isotropic

>radiator. Similarly, a 5/8 wave has a theoretical 3.3 db gain over the

>isotropic radiator.

>

>Does anyone know how they arrive at these numbers? In specific, what are

>the formulas? I am interested in just the formulas for "whip" style

>antennas (1/4 wave, 1/2 wave, 5/8 wave). Does the 1/4 wave have any gain

>over the imaginary isotropic radiator?

There are two common methods used to arrive at the numbers. The first method is to assume that you know the current distribution on the antenna. You can then finger a vector magnetic potential, A , from an integral that runs over your current sources. From A , you can get the fields everywhere. Once you have the fields, you can find the maximum field strength either from a plot of the fields or by finding it directly from the equations (by setting the derivative equal to zero).

The method above works well for wire antennas when you have a half way reasonable idea what the current distribution really is on the antenna. When you start to make more complex antennas, often you no longer have an intuitive feel for what the currents are doing. At this point, many people resort to what's called a "Methods of Moments" approach. With this approach, you assume that you know how to model the driving point of the antenna. Then, you set up a large matrix of equations that enforce field conditions on the surface of the antenna with respect to some assumed current at that point on the antenna. Once you solve the matrix, you have a very good idea of what the current on the antenna really is, and you can proceed as described above to find the fields and later the gain. The MoM technique is quite powerful, and fairly straightforward once you get used to it, but it's not the kind of thing you want to try and learn while watching Oprah at the same time.

A good book on this topic is, "Antenna Theory," by Constantine Balanis, published by John Wiley and Sons, 1982. Balanis has another book

called something like, "Advanced Engineering Electromagnetics" that is also quite good.

Of course, you probably just want the end results of all that nasty math anyway, don't you? :-)

>Also, the book mentions that a 1/4 wave "whip" needs a ground plane to >function correctly. Why does a 1/2 or 5/8 wave not need a ground plane to >"function correctly" (like the 1/4 wave)?

A 1/2 wave antenna works well. Notice that the 1/2 wave antenna is a symmetrical device... the current you feed in one half of it has the same magnitude as the current you feed into the other half of it. Because of this symmetry, you can show that the electric field for the 1/2 wave antenna is zero in the plane of the feed point. Now, a perfect electric conductor forces the electric field on the conductor to be zero. Therefore, if you place a large perfectly conducting plate in the plane of the feed point, the fields everywhere above the conducting plate have to be exactly the same as those in the original problem. Therefore, we have reduced our 1/2 wave antenna to a 1/4 wave antenna and a ground plane.

Of course, in reality ground planes aren't usually perfect conductors, nor are they infinite. There's been a lot of research into modeling the effects of these imperfect ground planes. Balanis talks about it a fair deal.

>Lastly, I have seen adds for 1/4 wave mobile antennas which state "no >ground plane required", most are on-glass antennas. How do these antennas >"function correctly"? Would it be better to have a ground plane, or do they >create an artificial ground plane?

This one I'll leave to someone more familiar with the exact antenna in question.

---Joel Kolstad

Date: 5 Oct 93 14:59:04 GMT
From: ogicse!uwm.edu!math.ohio-state.edu!sdd.hp.com!hpscit.sc.hp.com!
cupnews0.cup.hp.com!jholly@network.ucsd.edu
Subject: W1FB RTTY contest software
To: info-hams@ucsd.edu

Lee Reynolds (lee@tossport.sv.com) wrote:
: Anyone ever use it and have any comments on it??

:
Lee

I have never used the rtty software from W1FB. Is it anything like the software from WF1B? WF1B software is useful for the CQ WW, ARRL roundup, SARTG, BARTG and DXpedition mode. Over all it is pretty good, although there are problems with the scoring. You need to check over your log carefully after the contest to make sure it was scored correctly. But it does log and dupe correctly. I have been using it since it came out and will continue to use it.

73, Jim, WA6SDM
jholly@cup.hp.com

Date: 4 Oct 93 13:25:53 GMT
From: swrinde!elroy.jpl.nasa.gov!usc!howland.reston.ans.net!newsserver.jvnc.net!
yale.edu!nigel.msen.com!hela.iti.org!widener!dsinc!netnews.upenn.edu!
gopher.cs.uofs.edu!triangle.cs.uofs.edu!
Subject: walkman - radio transmitter
To: info-hams@ucsd.edu

In article <1993Oct1.124355.13350@mulvey.com>, rich@mulvey.com writes:
|> SCUNNANE@ESTEC.BITNET wrote:
|> : Can anyone tell me if such a thing exists to allow me to play my walkman
|> : on the car radio ? What I'm looking for is something to plug into the
|> : headphones socket of the walkman that transmits a radio signal that can
|> : be picked up by the car radio ?
|>
|>
|> Well, if all you're interested in is using the car stereo as an
|> amp/speaker system, then just go to radio shack and get their
|> "CD/Cassette? adapter. (This assumes that you have a cassette deck,
|> of course.) You plug one end into the headphone jack of your walkman,
|> and the other end looks like a cassette. Pop that into your deck, and
|> voila!
|>

If he already had a cassette deck in his car radio, why would he need a walkman??

bill

--
Bill Gunshannon |
bill@cs.uofs.edu |
University of Scranton |
Scranton, Pennsylvania | #include <std disclaimer.h>

Date: 5 Oct 1993 09:09:29 GMT
From: swrinde!cs.utexas.edu!math.ohio-state.edu!howland.reston.ans.net!pipex!
sunic!news.lth.se!pomona.tde.lth.se!sund@network.ucsd.edu
Subject: Where is Swedish Morse code program?
To: info-hams@ucsd.edu

>Does anyone remember the internet address of the file server?

235.130.32.86

>>>

Lars Sundstrom, Lund University, Dept.of Applied Electronics

P.O. Box 118, S-221 00 LUND, SWEDEN. EMail: sund@tde.lth.se
Phone: Int+ 46 46 10 95 13 Fax: Int+ 46 46 12 99 48

Date: 5 Oct 93 15:11:23 GMT
From: ogicse!emory!kd4nc!ke4zv!gary@network.ucsd.edu
To: info-hams@ucsd.edu

References <9309291203.AA15006@maverick.aud.alcatel.com>,
<1993Sep29.202111.22095@ke4zv.atl.ga.us>, <28pmqv\$53n@news.acns.nwu.edu>
Reply-To : gary@ke4zv.UUCP (Gary Coffman)
Subject : Re: Codeless Tech Debate

In article <28pmqv\$53n@news.acns.nwu.edu> lapin@casbah.acns.nwu.edu (Gregory
Lapin) writes:

>As you well know, I have avoided entering into this fruitless thread, in
>its many incarnations, for a long time. But I couldn't resist:
>

>At my home QTH I've talked around the world with my dipole 20 feet up in
>the trees and with about 50 watts out. I have some great QSOs on CW.
>Nobody seems to hear me on SSB, where my meager signal is spread out over
>about 10 times the bandwidth. Now you suggest that I spread it out even
>further to run FM!

Ah DX, well that's different. Morse encoded CW is marvelous for
"The Game". The standardized contacts don't require any real
communications thruput. A few seconds to beep out the callsigns,
ignore the rest since it never changes, and go on to the next
contact. I'm sure some people enjoy that, but pardon me if I'm
not impressed. To actually engage in an exchange of ideas usually
requires a bit more thruput than that, or extraordinary patience.
I find that 100 WPM RTTY is as slow as I care to communicate,
and much prefer the rapid exchanges of ideas available with voice.

It's a matter of taste, of course.

I had an Argonaut for many years. I used it with a simple doublet that I would toss into the trees when I operated portable. I never used CW, only SSB. Yet by choosing the proper band and time, I never lacked for interesting contacts. It's amazing what staying near the MUF can do for low power signals. Now I use a 100 watt IC735 and it offers a bit more latitude, but I rarely need the whole tenth gallon to make a contact. Note that I don't insist on operating in pileups, nor do I try to compete with VOA, that's what the full gallon home station with the big Rhombic is for. FM mobile on 10 meters, through some of the repeaters available, or direct, works just dandy for nice nearly noise free QSOs. I've chatted with the R0 on a Canadian icebreaker, a fellow studying bugs up the Amazon, and thousands of other interesting people. Few of those contacts would have been of interest if thruput was restricted to only a few words per minute.

Gary

--

Gary Coffman KE4ZV	"If 10% is good enough	gatech!wa4mei!ke4zv!gary
Destructive Testing Systems	for Jesus, it's good	uunet!rsiatl!ke4zv!gary
534 Shannon Way	enough for Uncle Sam."	emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244	-Ray Stevens	

Date: 5 Oct 93 13:17:13 GMT
From: auratek!epacyna@uunet.uu.net
To: info-hams@ucsd.edu

References <9310021637.AA24145@ucsd.edu>, <28qqbb\$91t@hpuerca.atl.hp.com>,
<28quvp\$5ql@safety.ics.uci.edu>
Subject : Re: New HF Rig

In article <28quvp\$5ql@safety.ics.uci.edu>, turner@safety.ics.uci.edu (Clark Savage Turner) writes:

> In <28qqbb\$91t@hpuerca.atl.hp.com> jab@hpuerca.atl.hp.com (Alan Barrow) writes:
> I DO believe that there are a lot of loyal Ten Tec guys out in Europe. I
> have seen some write that they like the Ten Tec stuff because the front
> ends are more bulletproof (for 40) than the latest, greatest Kewood, Icom and
> Yaesu radios. This says a LOT, since Europe has a lot of local b'cast there on
> 40, and the front end has to handle a lot of garbage.
>
Huh?

Have you looked at the DR, IMD, Intercept specifications lately?

73

Ed W1AAZ

End of Info-Hams Digest V93 #1181
